PHENIX Planning Meeting
February 23, 2012

Upcoming Access Days

Wed Feb 29

- We will request 4-6 hr access
- Work needed in IR?
- Do not separate VTX/FVTX this access

Break between 200 and 500 GeV p+p running (Mar 8 – Mar14)

- Request long access 10-12 hours
- Final separation of VTX/FVTX
  - Add cooling plate to ends of FVTX/VTX?
  - Find and fix NOVEC leak
  - Address FVTX to do list (jumper fibers, ROC-big wheel isolation
  - Inspection of FVTX to address various small failures
- Install MPC N rack?

1008 Infrastructure Issues

- Assembly Hall crane variable speed control plus wireless remote
- Window washer safety pins
- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room
- Electronics test/assembly room-to-parking lot door (does not open/close/lock properly –needs to be replaced)
- Trailer cesspool problem

2012 Shutdown Plans

Rough Schedule:

Prep for shutdown	2/1-6/15/2011
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and proceures	
Assembly and QA tests	
Run 12 Ends	6/15/2012
Shutdown Standard Tasks	6/15-7/13/2012
• Open wall, disassemble wall, Remove MuID Collars,	
• Move EC to AH, etc.	
Disassemble VTX/FVTX services	7/2-7/20/2012
Remove VTX/FVTX and transport to Chemistry Lab	7/20/2012
Remove MMS & MMN vertical East lampshades	7/23-7/27/2012
MuTr South Station 1 work	
Install access (Sta. 1work platforms)	7/23-7/27/2012
Disconnect Cables, hoses etc, ID/label all	7/30-8/3/2012
Remove FEE plates and chambers	8/6-8/10/2012
Station 2 Terminators and manifold upgrade through access opened by station 1 removal	8/13/-8/31/2012

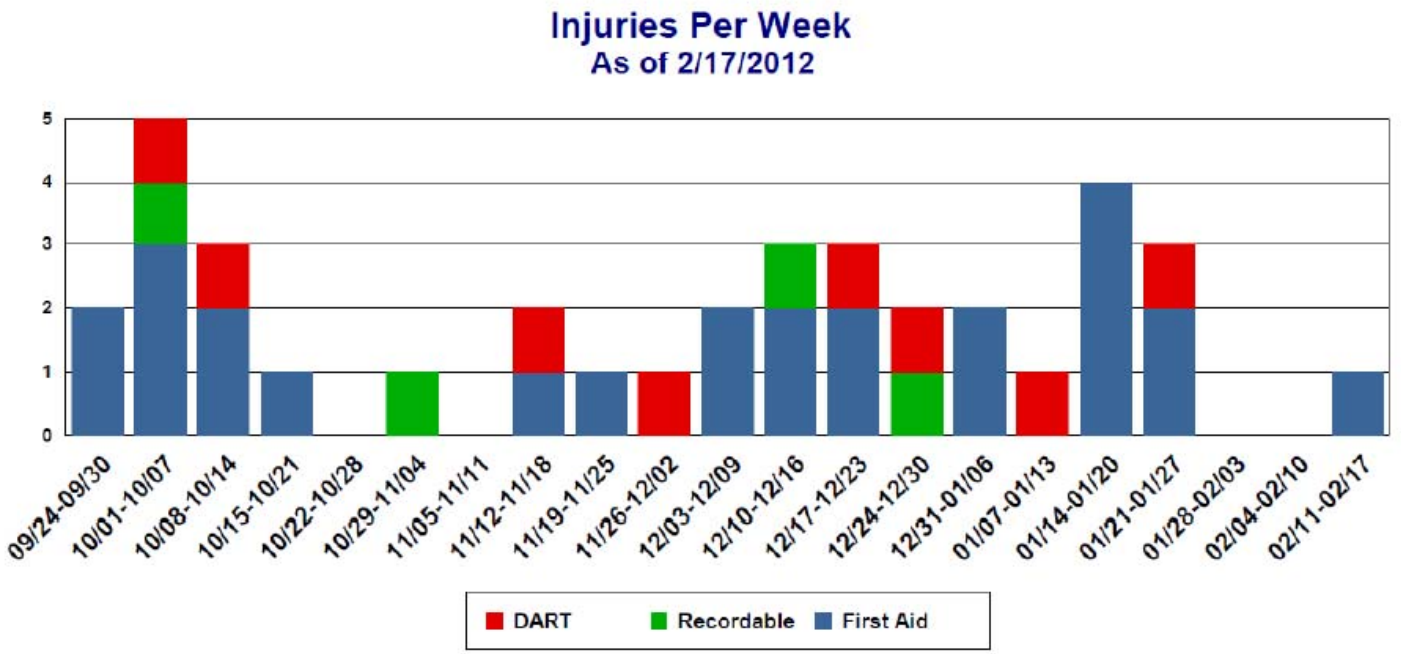
2012 Shutdown (Continued)

MuTr South Station 1 work (Cont'd)		
Clean/install new MuTr Sta. 1 chamber parts and upgrades (concurrent At RPC Factory)	8/13/-8/31/2012	
Re-install chambers and FEE plates		9/4-9/7/2012
Re-cable, re-hose and test		9/10-9/28/2012
Repair upgrade, test, reinstall VTX/FVTX		7/23-9/17/2012
Station 3 North and South (upper half) re-capacitation and air manifold upgrades		7/23-9/30/2012
Summer Sunday (RHIC)		8/5/12
Substation breaker upgrade/test (CAD)		TBD
AH utility power distribution upgrade		TBD
RPC stations 1 and 3, north and south maintenance		As required
Other detector maintenance as required		As required
Infrastructure maintenance as required		As required
TBD prototype tasks		As required
pre-run commissioning and prep for run 13		10/1-11/30/2012
Prep for EC roll in		11/5-11/9/2012
Roll in EC		11/12/2012
Prep IR for run		11/12-10/17/2010
Pink/Blue/White sheets		10/17-11/30/201
Start Run 13	12/3/2012	

New Electrical Work for 2012 Shutdown, not yet scheduled

1. Support CAD replacement of Assembly Hall 480V Fused Switch Panels #8H-1, 8H-2, and 8 EMH1. Coordinate temporary power patch while work is being performed and minimize impact on shutdown work.
2. Add the Assembly Hall Crane lockout/contactor/ indicator light key switch circuit – similar to IR Crane.
3. Add Transient Surge Suppressor to 3 phase power panel on the Central Magnet Bridge.
4. The Gas Mixing House Breaker Panel for the Gas Mixing side is almost out of spare breaker slots and needs to be reviewed for increased capacity panel to replace it.
5. Work with Martin Purscke on new computer rack replacements/additions for upcoming Run 13. He always has last minute Rack Room computer infrastructure changes involving power distribution circuit (UPS and normal AC power) re-work.

Safety



Injury Status:

FY12 YTD: DART – 8, TRC – 12, First Aid – 23
FY11: DART – 27, TRC – 42, First Aid – 45
FY10: DART – 19, TRC – 33, First Aid – 52

Recent Injuries		
2/13/12	First Aid	An employee injured his foot when dismounting a truck. At the OMC, first aid was administered and he returned to full duty.

Recent Events		
2/17/12	Non-Reportable	A Lockout/Tagout (LOTO) assessment identified red LOTO padlocks that had identical serial numbers and keys.

Recordable: Electric Shock
Modernization Project Office, December 15, 2011

Description: While modifying a panel in a data center at Building 515, a contract electrician received a shock while taping the ends of wires with duct tape. It was determined that, while taping the wires, the electrician was holding the wires in the left hand and the electrician's right hand brushed against load side energized phase conductors. All work was stopped and the area was made safe. After an exhaustive investigation, the team found no physical path for a source of voltage to the panel. The team determined that the most likely source would have been a voltage that was "backfed" from one of the load wires.

Causes: Work planning was not robust in regard to complete electrical isolation . Based on previous success, work planners did not fully evaluate sources of electrical energy that would play a factor in influencing the outcome of the task. After discussions with staff, the committee determined that backfeeds are typically not formally considered during work planning. This issue is not isolated to this event but is a general weakness in the planning process of electrical work.

Corrective Actions: Causal analysis is still underway.

Scissor-Lift Accident
Environmental Restoration, November 29, 2011

Description: A subcontractor fell approximately 16 feet from a scissor-lift (Sky Jack SJ-3 3226) with a hinged guardrail system. The worker was torch cutting the 3-inch thick steel south wall of the BGRR outer biological shield wall. The work location was in a radiologically controlled area. The worker leaned against the guardrail and it folded outboard into the down (open) position, allowing the worker to fall. The worker was seriously injured and sustained multiple fractures, including ribs and vertebrae.

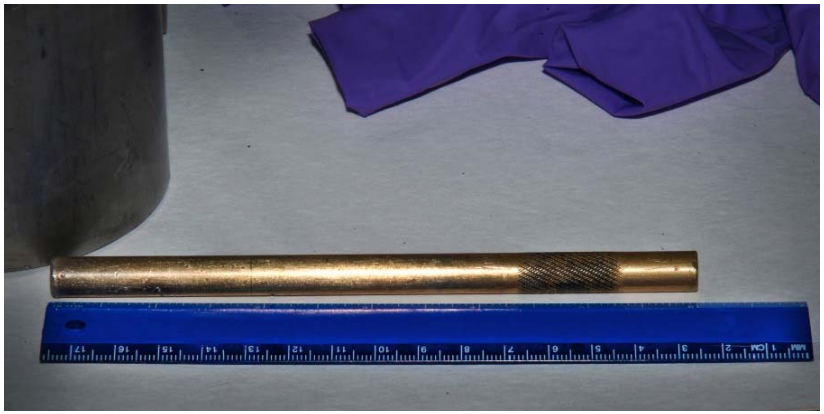
Direct Cause: Locking pins for the hinged guardrail system were not installed in accordance with the manufacturer's specifications.

Contributing Causes:

- The pre-use inspection was not performed, and roles/responsibilities were unclear
- The pre-job briefing did not cover the hazards of the scissor lift
- Workers and management focused on other higher perceived risks and became complacent regarding the scissor lift
- Supervisors had many collateral duties

A sealed source leak resulted in radioactive contamination September 28, 2011

Description: A Cs-137 sealed source leak resulted in radioactive contamination of equipment, facilities, personnel, and vehicles, including a personal vehicle that was determined to have left the site. All contamination was controlled within one day and areas were decontaminated within several days of the event. No significant radiation exposure or environmental impact. Event had potential for more serious contamination if spread offsite.



Causes:

- Broad misinterpretation of requirements for packaging and transport of sealed sources
- Training did not effectively clarify requirements
- The configuration management of sealed radioactive sources is less than adequate

Corrective Actions:

- Stand Down of Radiological Operations
- Leak-test all sources, and remove from service those without mission need
- Review contamination control procedures and practices
- Develop sealed source management program, including safety analysis, configuration control, maintenance, and testing procedures
- Clarify transportation requirements

DART: Electrical Shock
Site Services Division, June 15, 2011

Fuel Lines

Abandoned Energized Conductor

Description: On June 15, 2011, while repairing fuel lines on a diesel generator in Building 912A, a HEMO (Heavy Equipment Maintenance Operator) brushed an arm against an exposed and energized electrical conductor (120VAC) protruding from an in-ground electrical conduit. This conductor was part of a lighting circuit associated with an emergency diesel generator that was removed in the fall of 2008.

Causes:

- Redundancy of roles between F&O and C-AD, lack of clear roles and responsibilities, no formal acceptance of work performed, and incompletion of project resulted in live electrical wires abandoned in place.
- Acceptance of Design/Installation was less than adequate, allowing incomplete specifications for the fuel lines and resulting in the fuel leak and abandoned, exposed, and live electrical wires.
- Work planning was less than adequate; job planning and walk-down did not identify exposed wires.

Corrective Actions:

- Implement the use of project plans when projects use resources from more than one organization. Include roles, responsibilities, change control, turnover, and project close out.
- Incorporate Lab SMEs in design reviews.
- Revise Lab Electrical Safety Training to discuss electrical hazards from exposed conductors.
- Raise awareness of F&O supervisors, planners, and ESH personnel involved in work planning to recognize potential electrical hazards.

DART: Tree Felling Accident
Site Resources Division, March 5, 2011

Description: A BNL Grounds Worker was removing a tree (~50 ft.) using a 20-in., gas-powered chainsaw while standing in a two-person aerial boom lift with a co-worker. As a section of tree trunk (~18-in. diameter) was being cut (~21 ft. above ground level), it fell and struck the worker's right arm. The arm was caught between the tree trunk and the handrail of the lift. BHSO commissioned a Type B-type Investigation on 3/7/2011.

Causes: The BHSO Investigation resulted in 8 JONS which address the following:

- work planning & control
- supervision and oversight
- tree felling operations, training and procedures
- training course records
- emergency communication
- effectiveness of previous corrective actions

Corrective Actions: A Corrective Action Plan consisting of 26 actions was approved by BHSO addressing the JONs.